CLAIMS

What is claimed is:

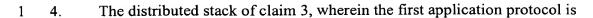
1	1. A distributed stack of programmable network devices, the distributed
2	stack comprising:
3	a first plurality of programmable network devices, the first plurality of
4	programmable network devices in communication via a first bus,
5	such that the first plurality of programmable network devices
6	includes a first plurality of modules, the first plurality of modules
7	performing a first plurality of network protocols;
8	a second plurality of programmable network devices, the second
9	plurality of programmable network devices in communication via a
.0	second bus, such that the second plurality of programmable networ
1	devices includes a second plurality of modules, the second plurality
2	of modules performing a second plurality of network protocols;
3	wherein the first bus and the second bus are coupled via the Internet.
1	2. The distributed stack of claim 1, wherein the first plurality of network
2	protocols includes a first application protocol.

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protocols includes a first network management protocol.

The distributed stack of claim 2, wherein the first plurality of network



- one of an MPLS protocol, an IP Sec protocol, an L2TP protocol, and a firewall.
- 1 5. The distributed stack of claim 4, wherein the first network management
- 2 protocol is one of an SLA function, an SNMP protocol, and a CMIP protocol.
- 1 6. The distributed stack of claim 4, wherein the first network management
- 2 protocol is one of CORBA and XML.
- The distributed stack of claim 3, wherein the second plurality of network
- 2 protocols includes a second application protocol.
- 1 8. The distributed stack of claim 7, wherein the second application protocol
- 2 is one of an MPLS protocol, an IP Sec protocol, an L2TP protocol, and a
- 3 firewall.
- 1 9. The distributed stack of claim 7, wherein the second plurality of network
- 2 protocols includes a second network management protocol.
- 1 10. The distributed stack of claim 9, wherein the first network management
- 2 protocol is one of an SLA function, an SNMP protocol, and a CMIP protocol.
- 1 11. The distributed stack of claim 9, wherein the first network management
- 2 protocol is one of CORBA and XML.

1	12. A programmable network device, wherein the programmable network
2.	device couples a first computer network to a second computer network, the
3	programmable network device comprising:
4	two or more software modules, the software modules encoded in a first
5	language, the two or more modules including
6	a first module, wherein the first module executes an application
7	service on packets routed between the first network and the second
8	network
9	a second module, wherein the second module executes a network
10	management service on packets routed between the first network and
11	the second network;
12	a real-time operating system, wherein the two or more software modules
13	are executed on the real-time operating system;
14	wherein the programmable network device has a minimum line rate of 1
15	gigabit per second.
1	13. The programmable network device of claim 12, wherein the application
2	service is one of the group consisting of an MPLS protocol, an IP Sec protocol,
3	an L2TP protocol, and a firewall.
1	14. The war arrange his metaconic device of claim 12, wherein the network
1	14. The programmable network device of claim 13, wherein the network
2	management service is one of the group consisting of an SLA function, an

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SNMP protocol, and a CMIP protocol.

1	15. The programmable network device of claim 13, wherein the network
2	management service is a CORBA Object Request Broker.
1	16. The programmable network device of claim 13, wherein the network
2	management service is an XML interpreter.
1	17. A method of loading a plurality of software modules onto a
2	programmable network device, the programmable network device coupled to a
3	LAN via a first interface and to an internetwork via a second interface, the
4	method comprising:
5	sending a first module from the plurality of modules to the
6	programmable network device via the internetwork;
7	loading the first module in the programmable network device;
8	executing the first module in the programmable network device, the first
9	module performing a first network management function on the
10	LAN;
11	sending a second module from the plurality of modules to the
12	programmable network device via the internetwork;
13	loading the second module in programmable network device;
14	executing the second module in the programmable network device, the
15	second module performing a second network management function

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on the LAN.

- 1 18. The method of claim 17, wherein the first function is one of the group
- 2 consisting of an MPLS protocol, an IP Sec protocol, an L2TP protocol, and a
- 3 firewall.
- 1 19. The method of claim 18, wherein the second function is one of the group
- 2 consisting of an SLA function, an SNMP protocol, and a CMIP protocol.
- 1 20. The method of claim 18, wherein the second function is an XML
- 2 interpreter.
- 1 21. The method of claim 18, wherein the second function is a CORBA
- 2 Object Request Broker.